



March 3, 2022

Revision 1 3/9/21 GAH

973862

Marc Munroe
3 Phase Line Construction
300 Westgate Dr.
Carol Stream, IL 60188

RE: Thorium Monitoring 443-462 E. North Water St.
CDOT Permit #1579076

Dear Mr. Munroe:

Stan A. Huber Consultants, Inc (SAHCI) was hired by your firm to provide radiation monitoring during the excavation for installation of a utility pole at 443-462 E. North Water Street in Chicago, Illinois. A report documenting the initial thorium monitoring of the utility trench was submitted on September 21, 2021. Excavation monitoring for the utility pole was performed February 23, 2022, by Jeremy Kieser, SAHCI Health Physics Technician.

Instrumentation

Surface gamma scans were performed using a Ludlum Model 2221 Scaler / Ratemeter (serial no. 132844) with attached Ludlum Model 44-10 2"x2" NaI Detector (w/ 6" collimated lead shield). The instrument was calibrated on May 5, 2021. The US Environmental Protection Agency (USEPA) action level of 7.1 picocuries per gram (pCi/g) total thorium for this instrument is 7,572 counts per minute (cpm).

The average background count rate for this location was measured as 1,851 cpm.

Soil Gamma Scans

Gamma surface scans were performed using the Ludlum Model 2221 Scaler / Ratemeter described above. Survey data was collected for the utility pole excavation by lowering the detector into hole the after each 18-inch lift was removed using a vacuum truck. The maximum depth of the pole excavation was 8 feet below ground surface.

The maximum gamma count rate for each lift was recorded on the attached Radiation Survey Form. The count rates in the excavation and spoils generated ranged from 1,600 cpm to 1,900 cpm. No count rates were found at any time that exceeded the threshold limit of 7,572 cpm.

Additional Monitoring

Since no count rates were identified above the 7.1 pCi/gram threshold limit, no additional soil sampling, air monitoring, or personnel monitoring were performed.

I will be providing a copy of this report to both the City of Chicago Department of Public Health and US Environmental Protection Agency, as required.

Thank you for your assistance with this project. If you have any questions or need additional information, please call me at (815) 485-6161.

Sincerely,
Stan A. Huber Consultants, Inc.

A handwritten signature in black ink, appearing to read 'G. Huber', written in a cursive style.

Glenn Huber, CHP
President

Radiation Survey Form

Location/ Project ID:

Date: Feb 23, 2022

Technician: Jeremy Kloser

Inst Model: 2221

Serial No.: 132844

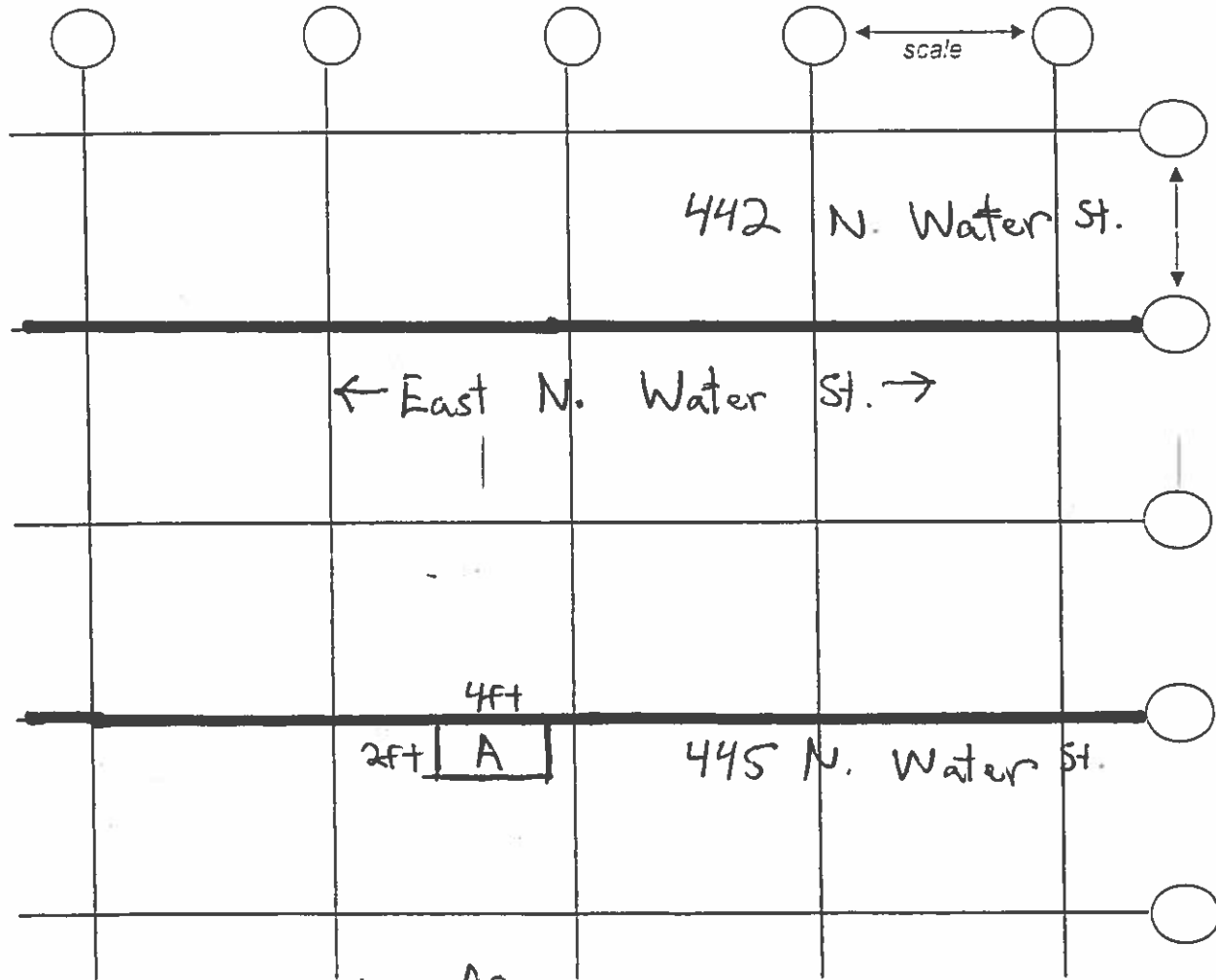
Probe Type: 1"x1" NaI 2"x2" NaI
Shielded Not Shielded

Lift Elevation: Surface to 8ft

Background 1857 cpm

Action Level: 7572 cpm

Write grid designations in circles. Record highest counts for grid in cpm. Record 30 second counts at grid intersections (if required). Shade areas of elevated counts and record max cpm.



Location A:

Surface: 1700 cpm

18 inch: 1600 cpm

36 inch: 1600 cpm

54 inch: 1800 cpm

72 inch: 1900 cpm

90 inch: 1600 cpm

96 inch: 1800 cpm